

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Applicants: **DE VROOME**

Application No.: 10/781,113

Filing Date: Feb. 18, 2004

Confirmation No.: 1963

Examiner: CULLER, Jill E.

Attorney Docket: A-3904; 6001.2096

Art Unit: 2854

Customer No.: 23280

Title: **PRINTING MATERIAL WEB PROCESSING MACHINE**

Submitted Electronically via EFS-WEB  
Mail Stop: APPEAL BRIEF – PATENTS  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

January 31, 2011

**APPEAL BRIEF UNDER 37 C.F.R. § 41.37**

Sir:

Appellants submit this brief for the consideration of the Board of Patent Appeals and Interferences (the “Board”) in support of their appeal of the Rejection dated June 8, 2010 in this application. The statutory fee of \$540.00 for filing an appeal brief is paid concurrently herewith. If any additional fees are deemed to be due at this time, the Assistant Commissioner is authorized to charge payment of the same to Deposit Account No. 50-0552.

## I. REAL PARTY IN INTEREST

The real party in interest is Goss Contiweb B.V., a corporation having a place of business in Boxmeer, Netherlands, and the assignee of the entire right, title and interest in the above-identified patent application. The invention was assigned to Goss Contiweb B.V. by an assignment originating from inventor Clemens Johannes Vroome. The assignment was recorded on October 19, 2004 at reel 015896, frame 0353.

## II. RELATED APPEALS AND INTERFERENCES

Appellants, their legal representatives, and assignee are not aware of any appeal, interference or judicial proceeding that directly affects, will be directly affected by, or will have a bearing on the Board's decision in this appeal.

## III. STATUS OF CLAIMS

Claims 1 to 17 and 20 to 26 are pending. Claims 18 and 19 have been canceled. Claims 1 to 17 and 20 to 26 have been finally rejected by the Examiner as per the Final Office Action dated June 8, 2010.

The rejection of claims 1 to 17 and 20 to 26 thus is appealed. A copy of pending claims 1 to 17 and 20 to 26 is attached hereto as Appendix A.

## IV. STATUS OF AMENDMENTS

No amendments were filed after the rejection of claims 1 to 17 and 20 to 26 in the Final Office Action dated June 8, 2010. A Notice of Appeal was filed and received by the U.S.P.T.O. on November 8, 2010.

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

Independent claim 1 recites a web-fed rotary printing press, comprising: at least one press cylinder for printing a paper web conveyed at a controllable first tensile stress (e.g., press cylinders 22 and web 4 in Fig. 1; page 18, lines 8 to 13); a dryer disposed downstream of said press cylinder (e.g., dryer 6 in Fig. 1; page 16, lines 21 to 23), said dryer including a plurality of nozzle bars disposed on both sides of the web guiding the web along a meander-like path (e.g., nozzle bars 11 in Figs. 1 and 2; page 16, line 23 to page 17, line 3 and page 25, lines 1 to 16), the nozzle bars being spaced apart and offset from one another (e.g., page 16, line 23 to page 17, line 3 and page 25, lines 1 to 16); a pull roll disposed downstream of said dryer for conveying the paper web along said meander-like path under a second tensile stress (e.g., cooling roll 15 in Fig. 1; page 19, lines 6 to 20 and page 23, lines 1 to 10); a first apparatus disposed downstream of said press cylinder and upstream of said dryer for separating the paper web from said press cylinder during a normal printing operation (e.g. separating apparatus 27 in Fig. 1; page 20, line 24 to page 21, line 4), said separating of the paper web from said press cylinder being decoupled from the conveying of said paper web along said path (e.g., Fig. 1; page 8, lines 7 to 10); a second apparatus for driving said pull roll at a controllable rotational speed which sets said second tensile stress (e.g., motor 26 in Fig. 1; page 19, lines 14 to 20 and page 23, lines 1 to 25); and a controller coupled to said at least one press cylinder and to said second apparatus (e.g., control unit 19 in Fig. 1; page 18, lines 15 to 20; page 19, lines 16 to 20), said controller setting said first tensile stress and said second tensile stress such that said second tensile stress is less than said first tensile stress (e.g., page 18, line 8 to page 20, line 8).

Independent claim 7 recites a web-fed rotary printing press, comprising: at least one press cylinder for printing a paper web conveyed at a controllable first tensile stress (e.g., press cylinders 22 and web 4 in Fig. 1; page 18, lines 8 to 13); a dryer disposed downstream of said press cylinder (e.g., dryer 6 in Fig. 1; page 16, lines 21 to 23), said dryer including a plurality of nozzle bars disposed on both sides of the web guiding the web along a meander-like path (e.g., nozzle bars 11 in Figs. 1 and 2; page 16, line 23 to page 17, line 3 and page 25, lines 1 to 16), the nozzle bars being spaced apart and offset from one another (e.g., page 16, line 23 to page 17, line

3 and page 25, lines 1 to 16); a first pull roll disposed downstream of said dryer to convey the paper web along the meander-like path under a second tensile stress (e.g., cooling roll 15 in Fig. 1; page 19, lines 6 to 20 and page 23, lines 1 to 10); a second pull roll, which is disposed downstream of said press cylinder and upstream of said dryer (e.g., pull roll 30 in Fig. 1; page 23, lines 15 to 25), for releasing the paper web during a normal printing operation and for controllably setting a third tensile stress on the paper web between the at least one press cylinder and said second pull roll (e.g., page 24, lines 13 to 20); an apparatus for driving said first pull roll at a controllable rotational speed which sets said second tensile stress (e.g., motor 26 in Fig. 1; page 19, lines 14 to 20 and page 23, lines 1 to 25); and a controller coupled to said at least one press cylinder and to said apparatus, said controller setting said first tensile stress and said second tensile stress such that said second tensile stress is less than said first tensile stress (e.g., control unit 19 in Fig. 1; page 18, line 8 to page 20, line 8).

Independent claim 14 recites a method for treating a printing material web in a printing material web in a web-fed rotary printing press, which further comprises: feeding a paper web to a press cylinder under a first controllable tensile stress (e.g., web 4 and press cylinder 22 in Fig. 1; page 18, lines 8 to 13); printing on the paper web using the press cylinder (e.g., page 20, lines 10 to 14); conveying the paper web along a drying path under a second controllable tensile stress of the paper web which is controllably set to be equal to or less than 10% of the first controllable tensile stress (e.g., page 19, line 6 to page 20, line 8), the drying path being established by a plurality of nozzle bars disposed on both sides of the web guiding the web along a meander-like path, the nozzle bars being spaced apart and offset from one another (e.g., nozzle bars 11 in Figs. 1 and 2; page 16, line 23 to page 17, line 3 and page 25, lines 1 to 16); and separating the paper web from the press cylinder during a normal printing operation (e.g. separating apparatus 27 in Fig. 1; page 20, line 24 to page 21, line 4), the separating of each paper web from the press cylinder being decoupled from the conveying of the paper web along the path (e.g., Fig. 1; page 8, lines 7 to 10).

Independent claim 24 recites a web-fed rotary printing press, comprising: at least one press cylinder for printing a paper web conveyed at a controllable first tensile stress (e.g., press

cylinders 22 and web 4 in Fig. 1; page 18, lines 8 to 13); a dryer disposed downstream of said press cylinder (e.g., dryer 6 in Fig. 1; page 16, lines 21 to 23), said dryer including a plurality of nozzle bars disposed on both sides of the web guiding the web along a meander-like path (e.g., nozzle bars 11 in Figs. 1 and 2; page 16, line 23 to page 17, line 3 and page 25, lines 1 to 16), the nozzle bars being spaced apart and offset from one another (e.g., page 16, line 23 to page 17, line 3 and page 25, lines 1 to 16); a first pull roll disposed downstream of said dryer to convey the paper web along the path under a controllable second tensile stress (e.g., cooling roll 15 in Fig. 1; page 19, lines 6 to 20 and page 23, lines 1 to 10); a second pull roll disposed downstream of said press cylinder and upstream of said dryer for releasing the paper web during a normal printing operation and for controllably setting a third tensile stress on the paper web between the at least one press cylinder and said second pull roll (e.g., pull roll 30 in Fig. 1; page 23, lines 15 to 25 and page 24, lines 13 to 20); an apparatus for driving said first pull roll at a controllable rotational speed to set said second tensile stress (e.g., motor 26 in Fig. 1; page 19, lines 14 to 20 and page 23, lines 1 to 25); and a controller coupled to said apparatus and to said second pull roll for controlling said second tensile stress and said third tensile stress such that said second tensile stress is less than said third tensile stress (e.g., control unit 19 in Fig. 1; page 18, line 8 to page 20, line 8).

## VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1, 2, 5, 7, 8, 10 to 15 and 23 to 26 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,058,844 to Niemiec ("Niemiec") in view of U.S. Patent No. 5,156,312 to Kurie ("Kurie"), U.S. Patent No. 3,238,869 to West et al. ("West") and U.S. Patent No. 6,832, 832 to Shima et al. ("Shima"). Claims 3 and 4 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Niemiec in view of Kurie, West and U.S. Patent No. 6,550,390 to Frankenberger ("Frankenberger"). Claims 6 and 9 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Niemiec in view of Kurie, West, Shima and U.S. Patent No. 5,913,471 to Makosch et al. ("Makosch"). Claims 16 to 18 and 20 to 22 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Niemiec in view of Kurie, West, Shima and U.S. Patent No. 3,875,682 to Justus et al. ("Justus").

## VII. ARGUMENTS

### A. Rejections under 35 U.S.C. §103(a): Niemiec in view of Kurie, West and Shima

Claims 1, 2, 5, 7, 8, 10 to 15 and 23 to 26 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Niemiec in view of Kurie, West and Shima.

Niemiec discloses a printing press which includes a series of printing units 16 for printing an unwound web 14 from unwind station 12. (Niemiec, Fig. 1). After printing, the web 14 passes sequentially through a floater oven 18 and chiller rolls 20 before passing to a sheeter/folder/-rewinder station 22. (Id.). “During its passage from the printing cylinders to and through the oven, the web must be maintained under tension so that it moves in an essentially straight line, does not droop or sag, and does not come in contact with any surfaces that might cause smearing of the ink.” (Niemiec, col. 4, lines 1 to 5). “The tension force on the web that pulls the web from the press to the sheeter/folder/rewinder station is applied solely and entirely from the station alternatively, from some other location downstream from the chill roll station 20.” (Niemiec, col. 6, lines 18 to 22).

Kurie discloses a treatment chamber 100 that includes two continuous series of nozzle assemblies 16 positioned above and below a moving web W in a full staggered relationship. (Kurie, Fig. 6, col. 6, lines 41 to 48).

West discloses a label imprinting apparatus which includes two front guides 160 and 161 at the output of printing cylinder 30 and serve to prevent printed labels from sticking to the printing cylinder 30. (West, Fig. 3, col. 10, lines 3-12).

Shima discloses an image forming apparatus that includes an inkjet type printing unit PU for applying ink droplets to a recording medium 1 that includes PET film substrate 10, a fixing layer 11 and a surface layer 12. (Col. 6, lines 17 to 49). After ink droplets are applied to recording medium 1, a sheet cutter means 5 in printing unit PU cuts recording medium 1 into a sheet. (Col. 7, lines 43 to 54). The sheet is transported into a loop-forming unit LU and then to a heat fixing unit HU. (Col. 7, lines 55 to 64). Loop-forming unit LU allows a trailing end of the sheet of recording medium 1 to exit printing unit PU so the sheet can be adjusted to the speed of

a heating transport mechanism 54 of heat fixing unit HU before a leading end of the sheet enters heat fixing unit HU. (Col. 10, lines 41 to 56; col.16, line 63 to col. 19, line 45). Loop-forming unit LU allows the transport speed and/or retention time of sheets of recording medium 1 in the heat fixing unit HU to be optimally set, independently of the discharging speed of the recording medium from printing unit PU. (Col. 3, lines 61 to 65).

1. Independent Claim 1

Claim 1, as amended, recites “[a] web-fed rotary printing press, comprising:

at least one press cylinder for printing a paper web conveyed at a controllable first tensile stress;

a dryer disposed downstream of said press cylinder, said dryer including a plurality of nozzle bars disposed on both sides of the web guiding the web along a meander-like path, the nozzle bars being spaced apart and offset from one another;

a pull roll disposed downstream of said dryer for conveying the paper web along said meander-like path under a second tensile stress;

a first apparatus disposed downstream of said press cylinder and upstream of said dryer for separating the paper web from said press cylinder during a normal printing operation, said separating of the paper web from said press cylinder being decoupled from the conveying of said paper web along said path;

a second apparatus for driving said pull roll at a controllable rotational speed which sets said second tensile stress; and

a controller coupled to said at least one press cylinder and to said second apparatus, said controller setting said first tensile stress and said second tensile stress such that said second tensile stress is less than said first tensile stress.” Claims 2 and 5 are dependent on claim 1.

It is respectfully submitted that the Examiner fails to consider the limitations of claim 1 as a whole and is merely selectively combining the cited references based on improper hindsight bias solely based on a desire to meet the limitations of claim 1. This is evidenced by the Examiner’s failure to consider the specific teachings of the cited references and the Examiner’s conclusory reasoning for combining the references.

First, it is respectfully submitted that one of skill in the art would not have modified

Niemiec to include a “dryer including a plurality of nozzle bars disposed on both sides of the web guiding the web along a meander-like path, the nozzle bars being spaced apart and offset from one another” and “a controller coupled to said at least one press cylinder and to said second apparatus, said controller setting said first tensile stress and said second tensile stress such that said second tensile stress is less than said first tensile stress” as recited in claim 1. Niemiec specifically teaches that web W “**must** be maintained under tension so that it moves in an essentially straight line ....” (Niemiec, col. 4, lines 1 to 5). Niemiec also teaches “[t]he tension force on the web that pulls the web from the press to the sheeter/folder/rewinder station is applied solely and entirely from the station alternatively, from some other location downstream from the chill roll station 20.” (Niemiec, col. 6, lines 18 to 22). Thus, in order for the apparatus of Niemiec to be operable as intended, **web W must move in an essentially straight line and only one tension is applied to web W solely at a location downstream of chill roll station 20.** As a result, one of skill in the art would not have modified Niemiec to include the “dryer... guiding the web along a meander-like path” as recited in claim 1 and a “controller setting said first tensile stress and said second tensile stress such that said second tensile stress is less than said first tensile stress” as recited in claim 1.

It is also respectfully submitted that none of Niemiec, Kurie, West or Shima, alone or in combination, discloses “a controller coupled to said at least one press cylinder and to said second apparatus, said controller setting said first tensile stress and said second tensile stress such that said second tensile stress is less than said first tensile stress” as recited in claim 1. The Examiner alleges that a controller 7 of Shima corresponds to the “controller” of claim 1. In Shima, controller 7 controls inkjet printing of recording material 1, cutting recording material 1 into sheets and then transporting each sheet to a loop-forming unit LU before transporting each sheet to a heat fixing unit HU. (See col. 7, lines 43 to 53; claim 4). The “controller” recited in claim 1 sets a first *tensile stress* and a second *tensile stress* of a *web*. Controller 7 only controls the *speed* that *sheets* of recording medium 1 are transporting in printing unit PU and heat fixing unit HU of Shima. The sheets in Shima are clearly not a web. Thus, controller 7 of Shima clearly does not set a first tensile stress and a second tensile stress of a *web* as required by claim 1. Also, Shima does not disclose that controller 7 sets the tensile stress of the sheet in heat fixing unit HU to be less than the tensile stress of the sheet in printing unit PU. Shima merely teaches that the



sheets may be transported at a lower speed in heat fixing unit HU than in printing unit PU, apparently so the sheets pass through heat fixing unit slowly enough to dry. Because tensile stress of a substrate depends on more than simply a speed a substrate is being transported, including how rollers 54a, 54b, 54d, 58 contact each substrate, the teaching of Shima related to the speed of the sheets in printing unit PU and heat fixing unit HU is insufficient to establish a relationship between the tensile stress of the sheets in printing unit PU and heat fixing unit HU.

Additionally, it is respectfully submitted that one of skill in the art would not have had any reason to modify the printing press of Niemiec in view of the printing apparatus of Shima to include controller 7 of Shima. The Examiner alleges that “[i]t would have been obvious to one having ordinary skill in the art at the time of the invention to modify the apparatus of Niemiec to have a controller controlling the first and second tensile stresses, as taught by Shima et al., so that the drying of the web can be better controlled.” Niemiec discloses drying a printed web using a floater type oven 18 “through which the printed web passes *without contacting any surfaces* in the oven.” (Emphasis added). In Shima, controller 7 controls the speed that a sheet is passed through heat fixing unit HU by controlling the rotation of the rollers of heat transporting mechanism 54 in heat fixing unit HU to allow retention time of the recording medium in heat fixing unit HU to be optimally set. One of skill in the art would not have had any reason to have modified the web printing press of Niemiec to include controller 7 of Shima because controller 7 of Shima controls the sheets using rollers inside of heat fixing unit HU, which Niemiec explicitly teaches away from. Also, because Shima teaches conveying sheets in an elongated state, controller 7 of Shima clearly would not be used with a “dryer including a plurality of nozzle bars disposed on both sides of the web guiding the web along a meander-like path” as now recited in claim 1.

Additionally, the Examiner’s reasoning for modifying the Niemiec in view of both Kurie and Shima is completely conclusory. First, the Examiner alleges that “[i]t would have been obvious to one having ordinary skill in the art at the time of the invention to modify the dryer of Niemiec to include nozzle bars, as taught by Kurie, in order to effectively move the web through the dryer.” (Final Office Action dated June 8, 2010, page 3). Then, the Examiner alleges that “[i]t would have been obvious to one having ordinary skill in the art at the time of the invention

to modify the apparatus of Niemiec to have a controller controlling the first and second tensile stresses, as taught by Shima et al., so that the drying of the web can be better controlled." (Final Office Action dated June 8, 2010, page 4). It is respectfully submitted that the Examiner fails to establish a prima facie case of obviousness with respect to the "controller" and the "dryer" of claim 1 because the Examiner has not adequately articulated *how* one of skill in the art would have modified the apparatus of Niemiec to include treatment chamber 100 of Kurie and controller 7 of Shima and *why* such an apparatus would "effectively move the web through the dryer" and make it so "the drying of the web can be better controlled." (See MPEP 2142; *KSR Int'l Co. v. Teleflex Inc.*, 383 127 S. Ct. 1727, 1740-41 (2007) ("[R]ejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.")). There is simply no factual basis that modifying Niemiec in view of Shima et al. as alleged by the Examiner would provide better drying control or effective movement through the dryer in Niemiec. (See Examination Guidelines Update: Development in the Obviousness Inquiry After *KSR v. Teleflex*: "It remains Office policy that appropriate factual findings are required in order to apply the enumerated rationales properly. If a rejection has been made that omits one of the required factual findings, and in response to the rejection a practitioner or inventor points out the omission, Office personnel must either withdraw the rejection, or repeat the rejection including all required factual findings.")

It is also respectfully submitted that none of Niemiec, Kurie, West or Shima, alone or in combination, discloses "a pull roll disposed downstream of said dryer for conveying the paper web along said meander-like path under a second tensile stress" as recited in claim 1. The Examiner alleges that the first chill roll 20 of Niemiec corresponds to the "pull roll" of claim 1. As discussed above, in Niemiec, "[t]he tension force on the web that pulls the web from the press to the sheeter/folder/rewinder station is applied solely and entirely from the station alternatively, from some other location downstream from the chill roll station 20." (Niemiec, col. 6, lines 18 to 22). Thus, the first chill roll 20 is not a "pull roll" for "conveying the paper web ... under a second tensile stress" as recited in claim 1. Web W in Niemiec is conveyed under a single stress solely from printing press 16 by a device downstream from chill rolls 20 and the first chill roll 20 is clearly different from the "pull roll" recited in claim 1.

Based on the foregoing, reversal of the rejection under 35 U.S.C. 103(a) of claim 1 and its dependent claims 2 and 5 is respectfully requested.

a. Dependent Claim 2: Argued Separately

Claim 2 recites “[t]he web-fed rotary printing press according to claim 1, wherein said controller sets said first tensile stress and said second tensile stress such that said second tensile stress is 10% or less than said first tensile stress.”

It is respectfully submitted that none of Niemiec, Kurie, West or Shima, alone or in combination, discloses or makes obvious “said controller sets said first tensile stress and said second tensile stress such that said second tensile stress is 10% or less than said first tensile stress” as recited in claim 2. In concluding claim 2 is obvious, appearing to rely on MPEP 2144.05 and *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955), the Examiner merely states: “although Niemiec, Kurie, West et al. and Shima et al. do not explicitly teaches controlling the second tensile stress to be equal to or less than 10% of said first tensile stress, one having ordinary skill in the art would recognize that the acceptable tensile stress would be highly dependent upon the type of material used in the paper web and therefore the ideal values could be best determined through routine experimentation.” (Final Office Action of June 8, 2010, page 4). It is respectfully submitted that the Examiner’s statements are clearly insufficient to establish a *prima facie* case of obviousness with respect to claim 2.

The Examiner has not provided on the record evidence or a scientific explanation establishing that one of ordinary skill in the art would have set the tension of a web with a pull roll downstream of a noncontact dryer at 10% or less than the tension that a web is conveyed as the web is printed by at least one press cylinder. The only evidence the Examiner relies on for setting two tensile stresses in different positions of a paper web is Shima, which as discussed above with respect to claim 1 does not even mention the tensile stresses at the positions identified by the Examiner, but merely involves the *speed* a web is printed by a printing unit and the speed a cut *sheet* is transported in a roller heating unit. Shima only teaches moving the cut sheets through the heating unit HU at a low speed so the sheets are sufficiently dried. Thus, Shima does not teach the “general conditions” of claim 2 and does not in any way suggest that setting the tension of a web with a pull roll downstream of a noncontact dryer with respect to the

tension that the web is conveyed as the web is printed by at least one press cylinder is a “results effective variable”. Accordingly, it is respectfully submitted that the Examiner’s reliance on *In re Aller* is improper because there is no indication in any of the references that the tension relationship recited in claim 2 is a results effective variable and because the “general conditions” of claim 2 are not disclosed in the cited references. (See *In re Antonie*, 559 F.2d 618, 195 USPQ 6 (CCPA 1977) and *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955)).

For this additional reason, withdrawal of the rejection under 35 U.S.C. 103(a) of claim 2 is respectfully requested.

2. Independent claim 7: Argued Separately

Claim 7 recites “[a] web-fed rotary printing press, comprising:  
at least one press cylinder for printing a paper web conveyed under a controllable first tensile stress;  
a dryer disposed downstream of said press cylinder, said dryer including a plurality of nozzle bars disposed on both sides of the web guiding the web along a meander-like path, the nozzle bars being spaced apart and offset from one another;  
a first pull roll disposed downstream of said dryer to convey the paper web along the meander-like path under a second tensile stress;  
a second pull roll, which is disposed downstream of said press cylinder and upstream of said dryer, for releasing the paper web during a normal printing operation and for controllably setting a third tensile stress on the paper web between the at least one press cylinder and said second pull roll;  
an apparatus for driving said first pull roll at a controllable rotational speed which sets said second tensile stress; and  
a controller coupled to said at least one press cylinder and to said apparatus, said controller setting said first tensile stress and said second tensile stress such that said second tensile stress is less than said first tensile stress.” Claims 8 and 10 to 13 are dependent on claim 7.

It is respectfully submitted that the Examiner fails to consider the limitations of claim 7 as a whole and is merely selectively combination the cited references based on improper

hindsight bias to meet the limitations of claim 7. This is evidenced by the Examiner's failure to consider the specific teachings of the cited references and conclusory reasoning for combining the references.

First, it is respectfully submitted that one of skill in the art would not have modified Niemiec to include a "dryer including a plurality of nozzle bars disposed on both sides of the web guiding the web along a meander-like path, the nozzle bars being spaced apart and offset from one another" and "a controller coupled to said at least one press cylinder and to said second apparatus, said controller setting said first tensile stress and said second tensile stress such that said second tensile stress is less than said first tensile stress" as recited in claim 7. Niemiec specifically teaches that web W "**must** be maintained under tension so that it moves in an essentially straight line ...." (Niemiec, col. 4, lines 1 to 5). Niemiec also teaches "[t]he tension force on the web that pulls the web from the press to the sheeter/folder/rewinder station is applied solely and entirely from the station alternatively, from some other location downstream from the chill roll station 20." (Niemiec, col. 6, lines 18 to 22). Thus, in order for the apparatus of Niemiec to be operable as intended, **web W must move in an essentially straight line and only one tension is applied to web W solely at a location downstream of chill roll station 20.** As a result, one of skill in the art would not have modified Niemiec to include the "dryer... guiding the web along a meander-like path" as recited in claim 7 and a "controller setting said first tensile stress and said second tensile stress such that said second tensile stress is less than said first tensile stress" as recited in claim 7.

Furthermore, it is respectfully submitted that none of Niemiec, West or Shima, alone or in combination, discloses "a controller coupled to said at least one press cylinder and to said second apparatus, said controller setting said first tensile stress and said second tensile stress such that said second tensile stress is less than said first tensile stress" as recited in claim 7. The Examiner alleges that a controller 7 of Shima corresponds to the "controller" of claim 7. In Shima, controller 7 controls inkjet printing of recording material 1, cutting recording material 1 into sheets and then transporting each sheet to a loop-forming unit LU before transporting each sheet to a heat fixing unit HU. The "controller" recited in claim 7 sets a first *tensile stress* and a second *tensile stress* of a *web*. Controller 7 only controls the *speed* that *sheets* of recording

medium 1 are transporting in printing unit PU and heat fixing unit HU of Shima. The sheets in Shima are clearly not a web. Thus, controller 7 of Shima clearly does not set a first tensile stress and a second tensile stress of a *web* as required by claim 7.

Also, Shima does not even disclose that controller 7 sets the tensile stress of the sheet in heat fixing unit HU to be less than the tensile stress of the sheet in printing unit PU. Shima merely teaches that the sheets may be transported at a lower speed in heat fixing unit HU than in printing unit PU. Because tensile stress of a substrate depends on more than simply a speed a substrate is being transported, the teaching of Shima related to the speed of the sheets in printing unit PU and heat fixing unit HU is insufficient to establish a relationship between the tensile stress of the sheets in printing unit PU and heat fixing unit HU and would not provide any reason for one of skill in the art to modify Niemiec to include the “controller” of claim 7.

Furthermore, it is respectfully submitted that one of skill in the art would not have modified the printing press of Niemiec in view of the printing apparatus of Shima to include controller 7 of Shima “so that the drying of the web can be better controlled” as alleged by the Examiner. (Office Action of February 3, 2010, page 3). Niemiec discloses drying a printed web using a floater type oven 18 “through which the printed web passes *without contacting any surfaces* in the oven.” (Emphasis added). In Shima, controller 7 controls the speed that a sheet is passed through heat fixing unit HU by controlling the rotation of the rollers of heat transporting mechanism 54 in heat fixing unit HU. Shima states that this allows retention time of the recording medium in heat fixing unit HU to be optimally set. One of skill in the art would not have had any reason to have modified the web printing press of Niemiec to include controller 7 of Shima because controller 7 of Shima controls the sheets using rollers inside of heat fixing unit HU. Using the rollers of transporting mechanism 54 of Shima in oven 18 of Niemiec would cause the printed web in Shima to contact the surfaces of the rollers in oven 18, which Niemiec explicitly teaches away from. Thus, one of skill in the art would have been lead away from using controller 7 of Shima in oven 18 of Niemiec. Also, because Shima teaches conveying sheets in an elongated state, controller 7 of Shima clearly would not be used with a “dryer including a plurality of nozzle bars disposed on both sides of the web guiding the web along a meander-like path” as now recited in claim 7.

It is also respectfully submitted that none of Niemiec, Kurie, West or Shima, alone or in combination, discloses “*a first pull roll* disposed downstream of said dryer to convey the paper web along the meander-like path under a second tensile stress” as recited in claim 7. The Examiner alleges that first chill roll 20 of Niemiec corresponds to the “first pull roll” of claim 7. As discussed above, in Niemiec, “[t]he tension force on the web that pulls the web from the press to the sheeter/folder/rewinder station is applied solely and entirely from the station alternatively, from some other location downstream from the chill roll station 20.” (Niemiec, col. 6, lines 18 to 22). Thus, first chill roll 20 is not a “first pull roll” for “conveying the paper web ... under a second tensile stress” as recited in claim 7. Web W in Niemiec is conveyed under a single stress solely from printing press 16 by a device downstream from chill rolls 20 and the first chill roll 20 is clearly different from the “first pull roll” recited in claim 7.

It is also respectfully submitted that one of skill in the art would not have had any reason to modify Niemiec in view of Shima to include pinching transport roller set 31 of Shima upstream of floater type oven 18 of Niemiec and thus the cited references do not make obvious “*a second pull roll*, which is disposed downstream of said press cylinder and upstream of said dryer, for releasing the paper web during a normal printing operation and for controllably setting a third tensile stress on the paper web between the at least one press cylinder and said second pull roll” as recited in claim 7. Similarly, because Niemiec teaches that “[t]he tension force on the web that pulls the web from the press to the sheeter/folder/rewinder station is applied solely and entirely from the station alternatively, from some other location downstream from the chill roll station 20” one of skill in the art would not have modified Niemiec as alleged by the Examiner. Also, the Examiner has not established a prima facie case of obviousness with respect to claim 7 because the Examiner has not provided any reason why one of skill in the art would have modified Niemiec in view of Shima to include pinching transport roller set 31 of Shima upstream of floater type oven 18 of Niemiec. (See the Office Action of February 3, 2010, page 5).

Based on the foregoing, reversal of the rejection under 35 U.S.C. 103(a) of claim 7 and its dependent claims 8 and 10 to 13 is respectfully requested.

a. Dependent Claim 8: Argued Separately

Claim 8 recites “[t]he web-fed rotary printing press according to claim 7, wherein said

controller sets said first tensile stress and said second tensile stress such that said second tensile stress is 10% or less than said first tensile stress.”

It is respectfully submitted that none of Niemiec, Kurie, West or Shima, alone or in combination, discloses or makes obvious “said controller sets said first tensile stress and said second tensile stress such that said second tensile stress is 10% or less than said first tensile stress” as recited in claim 8. In concluding claim 8 is obvious, appearing to rely on MPEP 2144.05 and *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955), the Examiner merely states: “although Niemiec, Kurie, West et al. and Shima et al. do not explicitly teaches controlling the second tensile stress to be equal to or less than 10% of said first tensile stress, one having ordinary skill in the art would recognize that the acceptable tensile stress would be highly dependent upon the type of material used in the paper web and therefore the ideal values could be best determined through routine experimentation.” (Final Office Action of June 8, 2010, page 4). It is respectfully submitted that the Examiner’s statements are clearly insufficient to establish a prima facie case of obviousness.

The Examiner has not provided on the record evidence or a scientific explanation establishing that one of ordinary skill in the art would have set the tension of a web with a pull roll downstream of a noncontact dryer at 10% or less than the tension that a web is conveyed as the web is printed by at least one press cylinder. The only evidence the Examiner relies on for setting two tensile stresses in different positions of a paper web is Shima, which as discussed above with respect to claim 7 does not even mention the tensile stresses at the positions identified by the Examiner, but merely involves the *speed* a web is printed by a printing unit and the speed a cut *sheet* is transported in a roller heating unit. Shima only teaches moving the cut sheets through the heating unit HU at a low speed so the sheets are sufficiently dried. Thus, Shima does not teach the “general conditions” of claim 8 and does not in any way suggest that setting the tension of a web with a pull roll downstream of a noncontact dryer with respect to the tension that a web is conveyed as the web is printed by at least one press cylinder is a results effective variable. Accordingly, it is respectfully submitted that the Examiner’s reliance on *In re Aller* is improper because there is no indication in any of the references that the tension relationship recited in claim 8 is a results effective variable and because the “general conditions”



of claim 8 are not disclosed in the cited references. (See *In re Antonie*, 559 F.2d 618, 195 USPQ 6 (CCPA 1977) and *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955)).

For this additional reason, withdrawal of the rejection under 35 U.S.C. 103(a) of claim 8 is respectfully requested.

3. Independent claim 14: Argued Separately

Claim 14 recites “[a] method for treating a printing material web in a printing material web in a web-fed rotary printing press, which further comprises:

feeding a paper web to a press cylinder under a first controllable tensile stress;

printing on the paper web using the press cylinder;

conveying the paper web along a drying path under a second controllable tensile stress of the paper web which is controllably set to be equal to or less than 10% of the first controllable tensile stress, the drying path being established by a plurality of nozzle bars disposed on both sides of the web guiding the web along a meander-like path, the nozzle bars being spaced apart and offset from one another; and

separating the paper web from the press cylinder during a normal printing operation, the separating of each paper web from the press cylinder being decoupled from the conveying of the paper web along the path.” Claim 15 is dependent on claim 14.

First, it is respectfully submitted that one of skill in the art would not have modified Niemiec to include a “conveying the paper web along a drying path under a second controllable tensile stress of the paper web which is controllably set to be equal to or less than 10% of the first controllable tensile stress, the drying path being established by a plurality of nozzle bars disposed on both sides of the web guiding the web along a meander-like path, the nozzle bars being spaced apart and offset from one another” as recited in claim 14. Niemiec specifically teaches that web W “must be maintained under tension so that it moves in an essentially straight line ....” (Niemiec, col. 4, lines 1 to 5). Niemiec also teaches “[t]he tension force on the web that pulls the web from the press to the sheeter/folder/rewinder station is applied solely and entirely from the station alternatively, from some other location downstream from the chill roll station 20.” (Niemiec, col. 6, lines 18 to 22). Thus, in order for the apparatus of Niemiec to be operable as

intended, **web W must move in an essentially straight line and only one tension is applied to web W solely at a location downstream of chill roll station 20.** As a result, one of skill in the art would not have modified Niemiec to include a “drying path being established by a plurality of nozzle bars disposed on both sides of the web guiding the web along a meander-like path” as recited in claim 14 and a “conveying the paper web along a drying path under a second controllable tensile stress of the paper web which is controllably set to be equal to or less than 10% of the first controllable tensile stress” as recited in claim 14.

Furthermore, it is respectfully submitted that none of Niemiec, Kurie, West or Shima, alone or in combination, discloses “conveying the paper web along a drying path under a second controllable tensile stress of the paper web which is controllably set to be equal to or less than 10% of the first controllable tensile stress” as recited in claim 14. Claim 14 requires that a web be fed to “a press cylinder under a first controllable tensile stress” and then be conveyed “along a drying path under a second controllable tensile stress of the paper web which is controllably set to be equal to or less than 10% of the first controllable tensile stress.” None of Niemiec, Kurie, West or Shima teaches or suggests controllably setting two different tensile stress levels on a web as the web passes through a printing press. As discussed above, controller 7 only controls the *speed* that *sheets* of recording medium 1 are transporting in printing unit PU and heat fixing unit HU of Shima. The sheets in Shima are clearly not a web. Thus, controller 7 of Shima clearly does not set a first tensile stress and a second tensile stress of a *web* as required by claim 14. Also, Shima does not disclose that controller 7 sets the tensile stress of the sheet in heat fixing unit HU to be less than the tensile stress of the sheet in printing unit PU. Shima merely teaches that the sheets may be transported at a lower speed in heat fixing unit HU than in printing unit PU. Because tensile stress of a substrate depends on more than simply a speed a substrate is being transported, the teaching of Shima related to the speed of the sheets in printing unit PU and heat fixing unit HU is insufficient to establish a relationship between the tensile stress of the sheets in printing unit PU and heat fixing unit HU.

It is also respectfully submitted that none of the cited references teaches or suggests setting two tensile stress levels in the claimed proportion of “equal to or less than 10%” as specifically required by claim 14. Apparently relying on MPEP 2144.05 and *In re Aller*, 220

F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955), the Examiner merely states: “[a]lthough Niemiec, West et al. and Shima et al. do not explicitly teach controlling the second tensile stress to be equal to or less than 10% of said first tensile stress, one having ordinary skill in the art would recognize that the acceptable tensile stress would be highly dependent upon the type of material used in the paper web and therefore the ideal values could be best determined through routine experimentation.” (February 3, 2010 Office Action, page 7). It is respectfully submitted that *In re Aller* and MPEP 2144.05 are not applicable to claim 14 because MPEP 2144.05 relates to numerical ranges such as “differences in concentration or temperature,” while claim 14 relates to a specific relationship between two tensions set on a single web. Also, the Examiner has not provided on the record evidence or a scientific explanation establishing that one of ordinary skill in the art would have set the tension of a web with a pull roll downstream of a noncontact dryer at 10% or less than the tension that a web is conveyed as the web is printed by at least one press cylinder. The only evidence the Examiner relies on for setting two tensile stresses in different positions of a paper web is Shima, which does not even mention the tensile stresses at the positions identified by the Examiner, but merely involves the *speed* a web is printed by a printing unit and the speed a cut *sheet* is transported in a roller heating unit. Shima only teaches moving the cut sheets through the heating unit HU at a low speed so the sheets are sufficiently dried. Thus, Shima does not teach the “general conditions” of claim 8 and does not in any way suggest that setting the tension of a web with a pull roll downstream of a noncontact dryer with respect to the tension that a web is conveyed as the web is printed by at least one press cylinder is a results effective variable. Accordingly, it is respectfully submitted that the Examiner’s reliance on *In re Aller* is improper because there is no indication in any of the references that the tension relationship recited in claim 14 is a results effective variable and because the “general conditions” of claim 14 are not disclosed in the cited references. (See *In re Antonie*, 559 F.2d 618, 195 USPQ 6 (CCPA 1977) and *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955)).

Additionally, it is respectfully submitted that one of skill in the art would not have modified the printing press of Niemiec in view of the printing apparatus of Shima to include controller 7 of Shima “so that the drying of the web can be better controlled” as alleged by the Examiner. Niemiec discloses drying a printed web using a floater type oven 18 “through which

the printed web passes *without contacting any surfaces* in the oven.” (Emphasis added). In Shima, controller 7 controls the speed that a sheet is passed through heat fixing unit HU by controlling the rotation of the rollers of heat transporting mechanism 54 in heat fixing unit HU to allow retention time of the recording medium in heat fixing unit HU to be optimally set. One of skill in the art would not have had any reason to have modified the web printing press of Niemiec to include controller 7 of Shima because controller 7 of Shima controls the sheets using rollers inside of heat fixing unit HU, which Niemiec explicitly teaches away from. Also, because Shima teaches conveying sheets in an elongated state, controller 7 of Shima clearly would not be used with a drying path that is “established by a plurality of nozzle bars disposed on both sides of the web guiding the web along a meander-like path” as now recited in claim 14.

Additionally, the Examiner’s reasoning for modifying the Niemiec in view of both Kurie and Shima is completely conclusory. First, the Examiner alleges that “[i]t would have been obvious to one having ordinary skill in the art at the time of the invention to modify the dryer of Niemiec to include nozzle bars, as taught by Kurie, in order to effectively move the web through the dryer.” (Final Office Action dated June 8, 2010, page 7). Then, the Examiner alleges that “[i]t would have been obvious to one having ordinary skill in the art at the time of the invention to modify the apparatus of Niemiec to have a controller controlling the first and second tensile stresses, as taught by Shima et al., so that the drying of the web can be better controlled.” (Final Office Action dated June 8, 2010, page 8). It is respectfully submitted that the Examiner fails to establish a prima facie case of obviousness with respect to the “controller” and the “dryer” of claim 1 because the Examiner has not adequately articulated *how* one of skill in the art would have modified the apparatus of Niemiec to include treatment chamber 100 of Kurie and controller 7 of Shima and *why* such an apparatus would “effectively move the web through the dryer” and make it so “the drying of the web can be better controlled.” (See MPEP 2142; *KSR Int’l Co. v. Teleflex Inc.*, 383 127 S. Ct. 1727, 1740-41 (2007) (“[R]ejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.”)).

Based on the foregoing, reversal of the rejection under 35 U.S.C. 103(a) of claim 14 and its dependent claim 15 is respectfully requested.

4. Independent claim 23: Argued Separately

Claim 23 recites “[a] web-fed rotary printing press, comprising:

at least one press cylinder for printing a paper web conveyed under a controllable first tensile stress;

a dryer disposed downstream of said press cylinder, said dryer including a plurality of nozzle bars disposed on both sides of the web guiding the web along a meander-like path, the nozzle bars being spaced apart and offset from one another;

a first pull roll disposed downstream of said dryer to convey the paper web along the path under a controllable second tensile stress;

a second pull roll disposed downstream of said press cylinder and upstream of said dryer for releasing the paper web during a normal printing operation and for controllably setting a third tensile stress on the paper web between the at least one press cylinder and said second pull roll;

an apparatus for driving said first pull roll at a controllable rotational speed to set said second tensile stress; and

a controller coupled to said apparatus and to said second pull roll for controlling said second tensile stress and said third tensile stress such that said second tensile stress is less than said third tensile stress.” Claims 24 to 26 are dependent on claim 23.

First, it is respectfully submitted that one of skill in the art would not have modified Niemiec to include a “dryer including a plurality of nozzle bars disposed on both sides of the web guiding the web along a meander-like path, the nozzle bars being spaced apart and offset from one another” and “a controller coupled to said apparatus and to said second pull roll for controlling said second tensile stress and said third tensile stress such that said second tensile stress is less than said third tensile stress” as recited in claim 1. Niemiec specifically teaches that web W “**must** be maintained under tension so that it moves in an essentially straight line ....” (Niemiec, col. 4, lines 1 to 5). Niemiec also teaches “[t]he tension force on the web that pulls the web from the press to the sheeter/folder/rewinder station is applied solely and entirely from the station alternatively, from some other location downstream from the chill roll station 20.” (Niemiec, col. 6, lines 18 to 22). Thus, in order for the apparatus of Niemiec to be operable as intended, **web W must move in an essentially straight line and only one tension is applied to web W solely at a location downstream of chill roll station 20.** As a result, one of skill in the

art would not have modified Niemiec to include the “dryer... guiding the web along a meander-like path” as recited in claim 23 and a “controller coupled to said apparatus and to said second pull roll for controlling said second tensile stress and said third tensile stress such that said second tensile stress is less than said third tensile stress” as recited in claim 23.

Furthermore, it is respectfully submitted that none of Niemiec, Kurie, West or Shima, alone or in combination, discloses “a controller coupled to said apparatus and to said second pull roll for controlling said second tensile stress and said third tensile stress such that said second tensile stress is less than said third tensile stress” as recited in claim 23. The Examiner alleges that a controller 7 of Shima corresponds to the “controller” of claim 23. In Shima, controller 7 controls inkjet printing of recording material 1, cutting recording material 1 into sheets and then transporting each sheet to a loop-forming unit LU before transporting each sheet to a heat fixing unit HU. The “controller” recited in claim 23 sets a second *tensile stress* and a third *tensile stress* of a *web*. Controller 7 only controls the *speed* that *sheets* of recording medium 1 are transporting from printing unit PU through loop-forming unit LU and into heat fixing unit HU of Shima. The sheets in Shima are clearly not a web. Thus, controller 7 of Shima clearly does not set a second tensile stress and a third tensile stress of a *web* as required by claim 23. Also, Shima does not disclose that controller 7 sets the tensile stress of the sheet in heat fixing unit HU to be less than the tensile stress of the sheet in loop-forming unit LU. Shima merely teaches that the sheets may be transported at a lower speed in heat fixing unit HU than in printing unit PU and that the speed of transport roller 31 of loop-forming unit LU is adjusted to prevent too much of a sheet from being present in loop-forming unit LU. Because tensile stress of a substrate depends on more than simply a speed a substrate is being transported, the teaching of Shima related to the speed of the sheets in loop-forming unit LU and heat fixing unit HU is insufficient to establish a relationship between the tensile stress of the sheets in loop-forming unit LU and heat fixing unit HU.

Additionally, it is respectfully submitted that one of skill in the art would not have modified the printing press of Niemiec in view of the printing apparatus of Shima to include controller 7 of Shima “so that the drying of the web can be better controlled” as alleged by the Examiner. Niemiec discloses drying a printed web using a floater type oven 18 “through which

the printed web passes *without contacting any surfaces* in the oven.” In Shima, controller 7 controls the speed that a sheet is passed through heat fixing unit HU by controlling the rotation of the rollers of heat transporting mechanism 54 in heat fixing unit HU to allow retention time of the recording medium in heat fixing unit HU to be optimally set. One of skill in the art would not have had any reason to have modified the web printing press of Niemiec to include controller 7 of Shima because controller 7 of Shima controls the sheets using rollers inside of heat fixing unit HU, which Niemiec explicitly teaches away from. Also, because Shima teaches conveying sheets in an elongated state, controller 7 of Shima clearly would not be used with a “dryer including a plurality of nozzle bars disposed on both sides of the web guiding the web along a meander-like path” as now recited in claim 23.

It is also respectfully submitted that none of Niemiec, West or Shima, alone or in combination, discloses “a second pull roll disposed downstream of said press cylinder and upstream of said dryer for releasing the paper web during a normal printing operation and for controllably setting a third tensile stress on the paper web between the at least one press cylinder and said second pull roll” as recited in claim 23 and the Examiner is in error for failing to address this language of claim 23. Pinching transport roller set 31 of Shima is different from the “second pull roll” required by claim 23 because roller set 31 of Shima does not release a paper web during normal printing operation and controllably set a third tensile stress on a paper web between a press cylinder and roller set 31. Also, one of skill in the art would not have had any reason to modify Niemiec in view of Shima to include pinching transport roller set 31 of Shima upstream of floater type oven 18 of Niemiec and the Examiner has not established a prima facie case of obviousness with respect to claim 23 because the Examiner has not provided any reason why one of skill in the would have modified Niemiec in view of Shima to include pinching transport roller set 31 of Shima upstream of floater type oven 18 of Niemiec.

Based on the foregoing, reversal of the rejection under 35 U.S.C. 103(a) of claim 23 and its dependent claims 24 to 26 is respectfully requested.

a. Dependent Claim 24: Argued Separately

Claim 24 recites “[t]he web-fed rotary printing press of claim 2[3], wherein the controller controls said second tensile stress and said third tensile stress such that said second tensile stress

is 10% or less than said third tensile stress.”

It is respectfully submitted that none of Niemiec, Kurie, West or Shima, alone or in combination, discloses or makes obvious “the controller controls said second tensile stress and said third tensile stress such that said **second tensile stress** is 10% or less than said **third tensile stress**” as recited in claim 24. In concluding claim 24 is obvious, the Examiner merely states: “although Niemiec, Kurie, West et al. and Shima et al. do not explicitly teach controlling the **second tensile stress** to be equal to or less than 10% of said **first tensile stress**, one having ordinary skill in the art would recognize that the acceptable tensile stress would be highly dependent upon the type of material used in the paper web and therefore the ideal values could be best determined through routine experimentation.” (Final Office Action of June 8, 2010, page 7). It is respectfully submitted that the Examiner’s statements are clearly insufficient to establish a prima facie case of obviousness and do not even address the actual language of claim 24, as **claim 24 involves the second tensile stress and the third tensile stress, not the first tensile stress and the second tensile stress.**

The Examiner has not provided on the record evidence or a scientific explanation establishing that one of ordinary skill in the art would have set the tension of a web with a first pull roll downstream of a noncontact dryer at 10% or less than the tension that a web is conveyed by a second pull roll downstream of at least one press cylinder and upstream of the dryer. The only evidence the Examiner relies on for setting two tensile stresses in different positions of a paper web is Shima, which as discussed above with respect to claim 1 does not even mention the tensile stresses at the positions identified by the Examiner, but merely involves the *speed* a web is printed by a printing unit and the speed a cut *sheet* is transported in a roller heating unit. Shima only teaches moving the cut sheets through the heating unit HU at a low speed so the sheets are sufficiently dried. Shima does not mention, nor does the Examiner even attempt to identify, where Shima discloses that pinching transport roller set 31 of Shima sets a tensile stress on a paper web between printing unit PU and transport roller set 31 to be less than the tension that a web is conveyed by any roller downstream of heating unit HU. Thus, Shima does not in any way make obvious the tension relationship recited in claim 24.

For this additional reason, withdrawal of the rejection under 35 U.S.C. 103(a) of claim 24



is respectfully requested.

b. Dependent Claim 26: Argued Separately

Claim 26 recites “[t]he web-fed rotary printing press of claim 25, wherein said controller sets said third tensile stress to be greater than said first tensile stress.”

It is respectfully submitted that none of Niemiec, Kurie, West or Shima, alone or in combination, discloses or makes obvious “said controller sets said third tensile stress to be greater than said first tensile stress” as recited in claim 26. **It is also respectfully submitted that the Examiner is in clear error for completely failing to address the limitations of claim 26.** None of the references in any way discloses setting a tensile stress on a paper web between at least one press cylinder and a second pull roll to be greater than a tensile stress that the web is being conveyed as the web is printed by the at least one press cylinder.

For this additional reason, withdrawal of the rejection under 35 U.S.C. 103(a) of claim 26 is respectfully requested.

B. Rejections under 35 U.S.C. §103(a): Niemiec, Kurie, West, Shima and Frankenger

Claims 3 and 4 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Niemiec in view of Kurie, West, Shima and Frankenger.

Claims 3 and 4 are dependent on independent claim 1. In view of the above arguments with respect to claim 1, reversal of the rejections under 35 U.S.C. §103(a) to claims 3 and 4 is respectfully requested.

C. Rejections under 35 U.S.C. §103(a): Niemiec, Kuire, West, Shima and Makosch

Claims 6 and 9 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Niemiec in view of Kurie, West, Shima and Makosch.

Claim 6 is dependent on claim 1 and claim 9 is dependent on claim 7. In view of the above arguments with respect to claims 1 and 7, reversal of the rejection of claims 6 and 9 under 35 U.S.C. §103(a) on this basis is thus respectfully requested.

D. Rejections under 35 U.S.C. §103(a): Niemiec, Kurie West, Shima and Justus

Claims 16 to 18 and 20 to 22 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Niemiec in view of Kurie, West, Shima and Justus.

Claims 16 to 18 and 20 to 22 are dependent on independent claim 14. In view of the above arguments with respect to claim 14, reversal of the rejections of claims 16 to 18 and 20 to 22 under 35 U.S.C. §103(a) on this basis is thus respectfully requested.

Claim 6 is dependent on claim 1 and claim 9 is dependent on claim 7. In view of the above arguments with respect to claims 1 and 7, reversal of the rejection of claims 6 and 9 under 35 U.S.C. §103(a) on this basis is thus respectfully requested.

D. Rejections under 35 U.S.C. §103(a): Niemiec, Kurie West, Shima and Justus

Claims 16 to 18 and 20 to 22 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Niemiec in view of Kurie, West, Shima and Justus.


Claims 16 to 18 and 20 to 22 are dependent on independent claim 14. In view of the above arguments with respect to claim 14, reversal of the rejections of claims 16 to 18 and 20 to 22 under 35 U.S.C. §103(a) on this basis is thus respectfully requested.

CONCLUSION

It is respectfully submitted that the application is in condition for allowance. Favorable consideration of this appeal brief is respectfully requested.

Respectfully submitted,

DAVIDSON, DAVIDSON & KAPPEL, LLC

By:   
William C. Gehris  
(Reg. No. 38,156)

DAVIDSON, DAVIDSON & KAPPEL, LLC  
485 Seventh Avenue, 14<sup>th</sup> Floor  
New York, NY 10018  
Tel: (212) 736-1940  
Fax: (212) 736-2427

**APPENDIX A:**

PENDING CLAIMS 1 to 17 and 20 to 26 of  
U.S. APPLICATION SERIAL NO. 10/781,113

Claim 1 (previously presented): A web-fed rotary printing press, comprising:

at least one press cylinder for printing a paper web conveyed at a controllable first tensile stress;

a dryer disposed downstream of said press cylinder, said dryer including a plurality of nozzle bars disposed on both sides of the web guiding the web along a meander-like path, the nozzle bars being spaced apart and offset from one another;

a pull roll disposed downstream of said dryer for conveying the paper web along said meander-like path under a second tensile stress;

a first apparatus disposed downstream of said press cylinder and upstream of said dryer for separating the paper web from said press cylinder during a normal printing operation, said separating of the paper web from said press cylinder being decoupled from the conveying of said paper web along said path;

a second apparatus for driving said pull roll at a controllable rotational speed which sets said second tensile stress; and

a controller coupled to said at least one press cylinder and to said second apparatus, said controller setting said first tensile stress and said second tensile stress such that said second tensile stress is less than said first tensile stress.

Claim 2 (previously presented). The web-fed rotary printing press according to claim 1, wherein said controller sets said first tensile stress and said second tensile stress such that said second tensile stress is 10% or less than said first tensile stress.

Claim 3 (previously presented): The web-fed rotary printing press according to claim 1, wherein said first apparatus for separating the paper web from said press cylinder separates the paper web from said press cylinder without contact.

Claim 4 (previously presented): The web-fed rotary printing press according to claim 3, wherein

said first apparatus has at least one element selected from the group consisting of blowing elements and ultrasound elements.

Claim 5 (previously presented): The web-fed rotary printing press according to claim 1, wherein the web-fed rotary printing press is a web-fed rotary offset press.

Claim 6 (previously presented): The web-fed rotary printing press according to claim 1, wherein said first apparatus for separating the paper web from said press cylinder is configured or coated in an ink-repellent manner, at least in some sections.

Claim 7 (previously presented): A web-fed rotary printing press, comprising:

- at least one press cylinder for printing a paper web conveyed under a controllable first tensile stress;

- a dryer disposed downstream of said press cylinder, said dryer including a plurality of nozzle bars disposed on both sides of the web guiding the web along a meander-like path, the nozzle bars being spaced apart and offset from one another;

- a first pull roll disposed downstream of said dryer to convey the paper web along the meander-like path under a second tensile stress;

- a second pull roll, which is disposed downstream of said press cylinder and upstream of said dryer, for releasing the paper web during a normal printing operation and for controllably setting a third tensile stress on the paper web between the at least one press cylinder and said second pull roll;

- an apparatus for driving said first pull roll at a controllable rotational speed which sets said second tensile stress; and

- a controller coupled to said at least one press cylinder and to said apparatus, said controller setting said first tensile stress and said second tensile stress such that said second tensile stress is less than said first tensile stress.

Claim 8 (previously presented): The web-fed rotary printing press according to claim 7, wherein said controller sets said first tensile stress and said second tensile stress such that said second tensile stress is 10% or less than said first tensile stress.

Claim 9 (previously presented): The web-fed rotary printing press according to claim 7, wherein said second pull roll is configured or coated in an ink-repellent manner, at least in some sections.

Claim 10 (previously presented): The web-fed rotary printing press according to claim 7, wherein said first pull roll is a cooling roll.

Claim 11 (previously presented): The web-fed rotary printing press according to claim 7, wherein said first and second pull rolls are in each case constructed as a driven, rotating element.

Claim 12 (previously presented): The web-fed rotary printing press according to claim 7, wherein said first pull roll and said press cylinder are in each case constructed as a driven, rotating element.

Claim 13 (previously presented): The web-fed rotary printing press according to claim 7, wherein the web-fed rotary printing press is a web-fed rotary offset press.

Claim 14 (previously presented): A method for treating a printing material web in a printing material web in a web-fed rotary printing press, which further comprises:

- feeding a paper web to a press cylinder under a first controllable tensile stress;

- printing on the paper web using the press cylinder;

- conveying the paper web along a drying path under a second controllable tensile stress of the paper web which is controllably set to be equal to or less than 10% of the first controllable tensile stress, the drying path being established by a plurality of nozzle bars disposed on both sides of the web guiding the web along a meander-like path, the nozzle bars being spaced apart and offset from one another; and

- separating the paper web from the press cylinder during a normal printing operation, the separating of each paper web from the press cylinder being decoupled from the conveying of the paper web along the path.

Claim 15 (previously presented): The method according to claim 14, which further comprises setting the second controllable tensile stress to a value suitable for conveying the paper web after separation from the press cylinder.

Claim 16 (previously presented): The method according to claim 14, which further comprises conveying the paper web along the drying path composed of path parts which follow one another and are oppositely curved.

Claim 17 (previously presented): The method according to claim 14, which further comprises controlling the second controllable tensile stress such that the drying path is composed of path parts which follow one another and are oppositely curved.

Claims 18 and 19 (canceled)

Claim 20 (previously presented): The method according to claim 14, which further comprises controlling the second controllable tensile stress such that the drying path has a radii of curvature following one another of in each case less than 200 mm.

Claim 21 (previously presented): The method according to claim 14, which further comprises increasing a temperature of the paper web along the drying path.

Claim 22 (previously presented): The method according to claim 14, which further comprises controlling the second controllable tensile stress such that the drying path is substantially sinusoidal.

Claim 23 (previously presented): A web-fed rotary printing press, comprising:

- at least one press cylinder for printing a paper web conveyed under a controllable first tensile stress;

- a dryer disposed downstream of said press cylinder, said dryer including a plurality of nozzle bars disposed on both sides of the web guiding the web along a meander-like path, the nozzle bars being spaced apart and offset from one another;

- a first pull roll disposed downstream of said dryer to convey the paper web along the path under a controllable second tensile stress;

- a second pull roll disposed downstream of said press cylinder and upstream of said dryer for releasing the paper web during a normal printing operation and for controllably setting a third tensile stress on the paper web between the at least one press cylinder and said second pull roll;

- an apparatus for driving said first pull roll at a controllable rotational speed to set said



second tensile stress; and

a controller coupled to said apparatus and to said second pull roll for controlling said second tensile stress and said third tensile stress such that said second tensile stress is less than said third tensile stress.

Claim 24 (previously presented): The web-fed rotary printing press of claim 24, wherein the controller controls said second tensile stress and said third tensile stress such that said second tensile stress is 10% or less than said third tensile stress.

Claim 25 (previously presented): The web-fed rotary printing press of claim 24, wherein said controller is also coupled to at least one press cylinder for controlling said first tensile stress.

Claim 26 (previously presented): The web-fed rotary printing press of claim 25, wherein said controller sets said third tensile stress to be greater than said first tensile stress.

## **APPENDIX B**

Evidence Appendix under 37 C.F.R. §41.37 (c) (ix):

No evidence pursuant to 37 C.F.R. §§1.130, 1.131 or 1.132 and relied upon in the appeal has been submitted by appellants or entered by the examiner.

## **APPENDIX C**

Related proceedings appendix under 37 C.F.R. §41.37 (c) (x):

As stated in “2. RELATED APPEALS AND INTERFERENCES” of this appeal brief, appellants, their legal representatives, and assignee are not aware of any appeal or interference that directly affects, will be directly affected by, or will have a bearing on the Board’s decision in this appeal.